

The Ballarat Naturalist

February 2020



Plugging the Gap: Restoring Wetlands

Presenter: Dr Greg Kerr—December 2019 meeting

Greg explained that the organisation he works for is mainly concerned with restoring wetlands and this was the focus of his talk.

Nature Glenelg Trust



Greg noted that 66% of pre-European wetlands are now gone and the remaining ones are compromised in some way.

Some other impacts on water resources and wetlands include pine plantations (which lower groundwater levels, irrigation, rainfall patterns, urban development and the main driver is drainage).

Nature Glenelg Trust (NGT) has restored 35 wetlands representing over 30,000 Ha of habitat. There are 7 properties under permanent conservation management, specifically to protect wetlands. NGT have also been involved in restoring Bittern habitat in south-west Victoria.



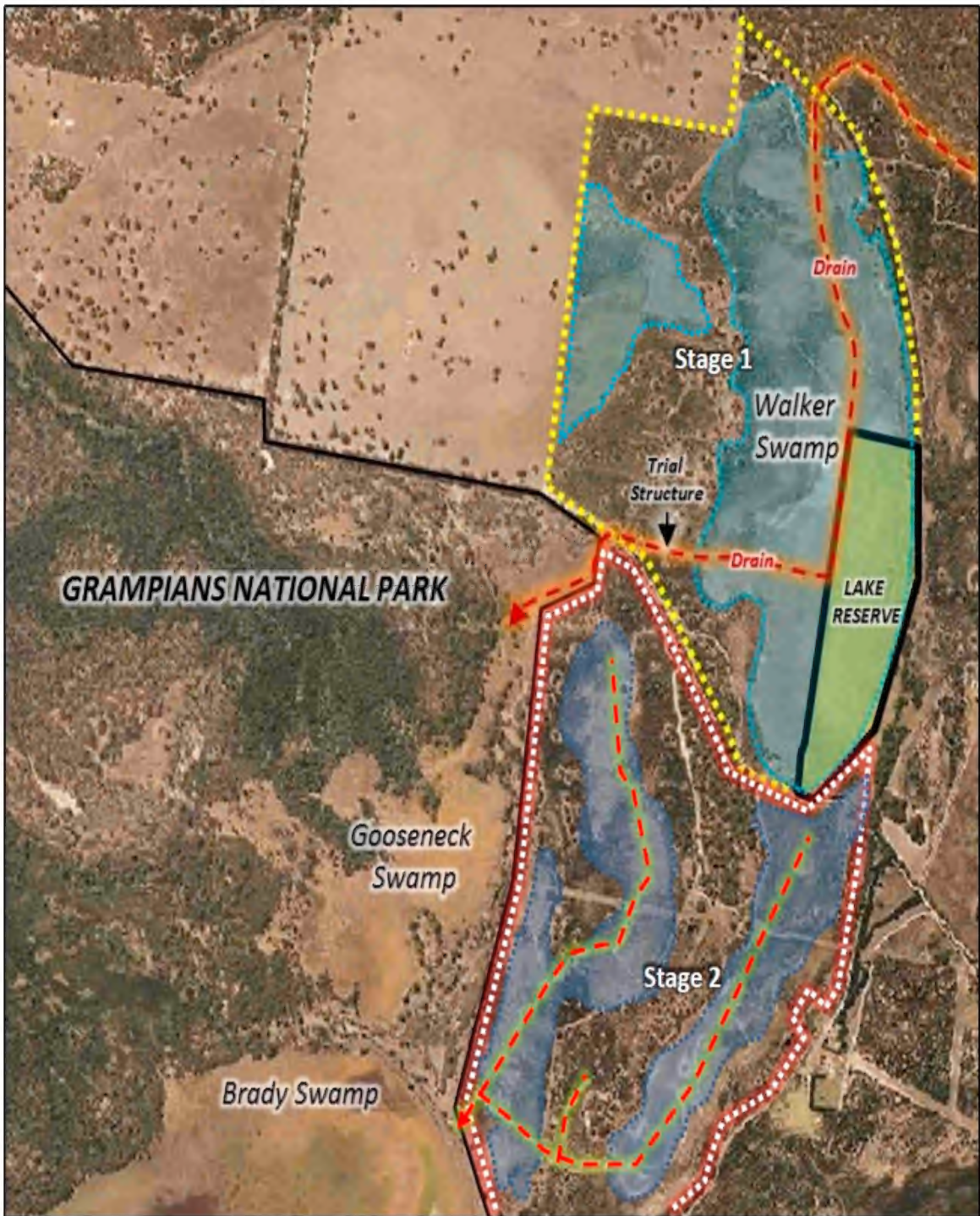
Walkers Swamp, a restored wetland east of the Grampians with purpose built observation tower.

Greg gave a comprehensive picture of a number of key wetlands in the Dunkeld area (see map on page 3), many on private land. Brady Swamp, Green Swamp, Gooseneck Swamp, Scale Swamp and Walker Swamp were all drained or developed in the early to mid 20th century. They are at the top of a closed catchment and all water flows to the west through artificial outlets. Wetland water flow at a landscape level is a complex business, so NGT used some high-tech geographic information systems including LIDAR to determine how best to alter drainage patterns to achieve the best results. This work also inevitably involves multiple landholders, local government and State government bodies, so much diplomacy and cooperation is required.

A good example of a restored wetland in the area is Murphy Swamp which straddles both public and private land and is situated mid-catchment. It was drained many years ago to reduce inundation depth and duration. Blocking the outlet was the most effective method, mainly because the water cover kills introduced grasses while allowing native wetland species to grow and thrive. Photographs of before and after clearly illustrated how successful restoration via a simple bank across a drainage outlet can be. Greg explained that a line of sand bags was sufficient to prevent drainage and allowed wetlands water levels to rise and forced water to flow down original flow-paths.

NGT is keen to promote their work to the wider community and Greg boasted that community volunteers contribute in excess of 5000 hrs of labour to the cause. Philanthropic donations have reached close to \$150,000 and that provides not only for ground works, but also community events, school visits, protection of Traditional Owner heritage, revegetation events and citizen science education which involves a free course on bird identification and monitoring techniques so that people can continue monitoring wetland health.





In the past 12 months or so, NGT has been involved in getting grants to get drains removed (26 kms), to construct trial weirs and other structures (3 kms), and to laser grade land. Other grants provided for raising a roadway some 50cms to allow surrounding land to be flooded, but still allow landholders access to adjoining paddocks, etc. NGT has also relocated a bird hide/observation tower, car park and information signage at Walker Swamp, south and east of the Grampians, plus fencing and collating a base-line study of the area. Walker Swamp will feature at the SEANA camp in April.

Of course, the whole purpose of restoring wetlands in the south-west is all about providing more suitable habitat for native species – birds, mammals, fish, frogs, reptiles, invertebrates and plants. Greg mentioned some threatened species in the region including Brolga, Growling Grass Frog, Western Carp Gudgeon and Western Swamp Crayfish which will benefit directly from increases in wetlands generally.



Greg concluded that:

- Wetland restoration at a landscape level is feasible;
- Restoring wetlands on private property is highly achievable;
- Landholders are interested in improving the environment in a cost effective way;
- Addressing threats and past management impacts involves a lot of innovation (and cooperation).

If you'd like to find out more about NGT check out their website natureglenelg.org.au or email info@natureglenelg.org.au (Greg confirmed that the damselfly on NGT's logo was the Ancient Greenling *Hemiphysalis mirabilis*)

**Special invitation to the Club's 2020 AGM
to be held Friday March 6th from 7.30pm.
Includes annual reports, members' presentations
and supper.**

Extract from Club Meeting Minutes - December 6, 2019

Opening and Apologies

Attendance: President John Gregurke welcomed 30 members plus visitors Amelia Johnson and speaker Dr Greg Kerr.

Apologies: Chris & Anna Baulch, Fiona McPhie, Kathy Elder, John Morrish, Genny Binns, Bill Murphy, Mike Sorrell, Margaret Rich, Selena Prior, Shirley Faull and Mark Moravec.

Minutes of the previous Meeting: The last Club Meeting was the Stella Bedggood Memorial Lecture. No Minutes were taken.

Business Arising from Correspondence:

Creswick Trails Project update: John P reported. He showed us one of the proposed concept trail alignment maps & mentioned that Hepburn Shire Council have reduced the feedback period by 2 weeks to January 20. They estimate that 47% of trails will be in Creswick RP (the highest conservation status reserve around Ballarat), 6-8% in plantation, and a number around Cosgrove Reservoir, along a historic water race and in rich habitat that presents a terrific bird-watching area. The maps are very complex. It is very difficult to determine whether tracks are new or existing, and of those, which trails are illegal and which are 4-wheel drive tracks or other sanctioned tracks. None of the botanical reports, cultural & historical reports or other documents that presumably contributed to determining the routes proposed have been released to the public. We have requested this information to help us assess the merits of the alignments. John P is going to the community meeting about the project on Saturday 7 December. John G will go to the community meeting on Wednesday 11 Dec. They have not proposed any trails in the Petticoat Gully area, which may be as a result of our pressure. Siobhan Rogan, a Parks Vic staffer has regretfully cancelled her membership with the FNCB to ensure that there can be no suggestion of conflict of interest re the Creswick Trails Project.

Success! A grant application for Community Environment Program funds to enable the purchase of two iPads, dongles and hard drives to aggregate and standardise FNCB's flora and fauna data collection has been approved.

Request for donations from FungiMap to enable the commissioning of illustrations for the book "Fungi4Land: The Land Manager's Guide to Fungi". The Committee recommend to members that the Club donate \$200 towards this endeavour.

Motion: that the Club donate \$200 Moved: E. Thurgood and seconded: A. Arnold

Reports:

Treasurer's Report:

Opening bal:	\$8,824.90
Income	\$71.00
Expenses	\$214.59
Closing bal:	\$8,681.31

N.B. The report covers two months because there was no Treasurer's Report last month due to the Stella Bedggood Memorial Lecture.

Third session of the "Rat Nat's (Junior FNBC Group):

Three children, including one first-time attendee with his Mum, enjoyed seeing a Tawny Frogmouth on the nest, nesting White-winged Choughs and Black-faced Cuckoo-shrikes and quite a number of other birds.

Three-yearly Vegetation Monitoring in Woowookarung Regional Park: This year has been the third time we have assessed these 16 sites (the seventeenth site is now inaccessible due to gorse).

General Business

Vale Peter Billing. Fifteen or so field Nats were amongst the 80-100 attendees at Peter's funeral. He will be missed at meetings. Margaret Rotheram has donated some books to the Club for members to lighten her load for her move to Tasmania. They are available on the side-table for re-homing tonight.

Show & Tell/ Field Reports

Val went to Sparrowground in Canadian on Nov. 27 after reading Roger's *Nature Notes* report, delighting in the profusion of Milk-maids, Triggerplants, Blue Pincushions, Common Rice-flowers, Tall Sundews, Common Wedge-peas, Matted Bush-peas, Showy Parrot-peas, Chocolate lilies, Button and Clustered Everlastings.

Carol went out to Lake Learmonth, spotting Red-kneed Dotterels, Avocets, six Yellow-billed Spoonbills. She has also been a regular visitor to Devil's Kitchen, watching the family of Peregrine Falcons with three chicks with great interest. The eldest is now exercising its wings, and she saw three Wedge-tailed Eagles flying overhead.

Andy saw a Great Crested-grebe fishing in Lake Wendouree, then saw another near the Yacht Club.

John G attended the Challenge Bird Count where they spotted 68 cygnets and 6-8 Great Crested-grebes on Lake Wendouree. John also reported flowering Trailing Shaggy-pea, Heath Milkwords, a few *Xanthorrhoea australis* flowering in an unburnt area and budding en masse in the burnt area at Woowookarung Regional Park.

Field Reports cont'd

Andrew G bought a new book full of illustrative photos by George Adams to help him identify birds: "The Complete Guide to Australian Birds". On a bird-watching trip to Mt Ararat saw Dusky Woodswallows, White-winged Trillers and Black Kites hunting above them.



White-winged Triller

L. Male and R. Female

The annual migration of worms from higher ground to the wetter lower parts of *Paul's* block in Mt Egerton has begun.

John P has been enjoying the profusion of Podolobiums, Vanilla-lilies and Blue Pincushions in Alkera Rd, Invermay.

Ken has a pair of Ravens that have had a pair of very inquisitive chicks exploring his backyard. One was apparently trying to soften some plastic wire for eating by dunking it repeatedly in the birdbath.

Emily reported on the very unusual prevalence of White-necked Herons on their wetland, with up to five dotted around the edge at any one time. The Australasian Grebes hatched three chicks a week ago and the Sacred Kingfishers have one chick too. The Olive-backed Orioles have been collecting strands of Common Tussock-grass for their nest this week, and a Grey Shrike-thrush pair have built a nest in the turret of her partly-built house and are sitting on eggs.

Peter N reported on a "carnage" of ravens (i.e. about 150-200 ravens in Smythesdale-Browns Rd). Emily also saw them in Corio Dam Road, Scarsdale.

Fiona found a very scared, young Black Wallaby trapped in her little Mt Pleasant backyard. She called in a wonderful wildlife carer to rescue it and relocate it to an appropriate environment. Stephanie spotted an echidna in her Brown Hill backyard.

Doug reported a pair of Square-tailed Kites flying above his Brown Hill backyard.



Indigenous Walkabout – Creswick

One of the more pleasant activities associated with Field Nats is being shown around an area of natural beauty created by someone who is so obviously passionate about that area. It is a bonus when the person/people showing us around is also the creator of that beauty.

A small group of Field Nats were welcomed by Dr Kevin Tolhurst and his wife, Rosemary at the eastern part of the Park Lake Botanical Reserve close to the tennis courts in Creswick.

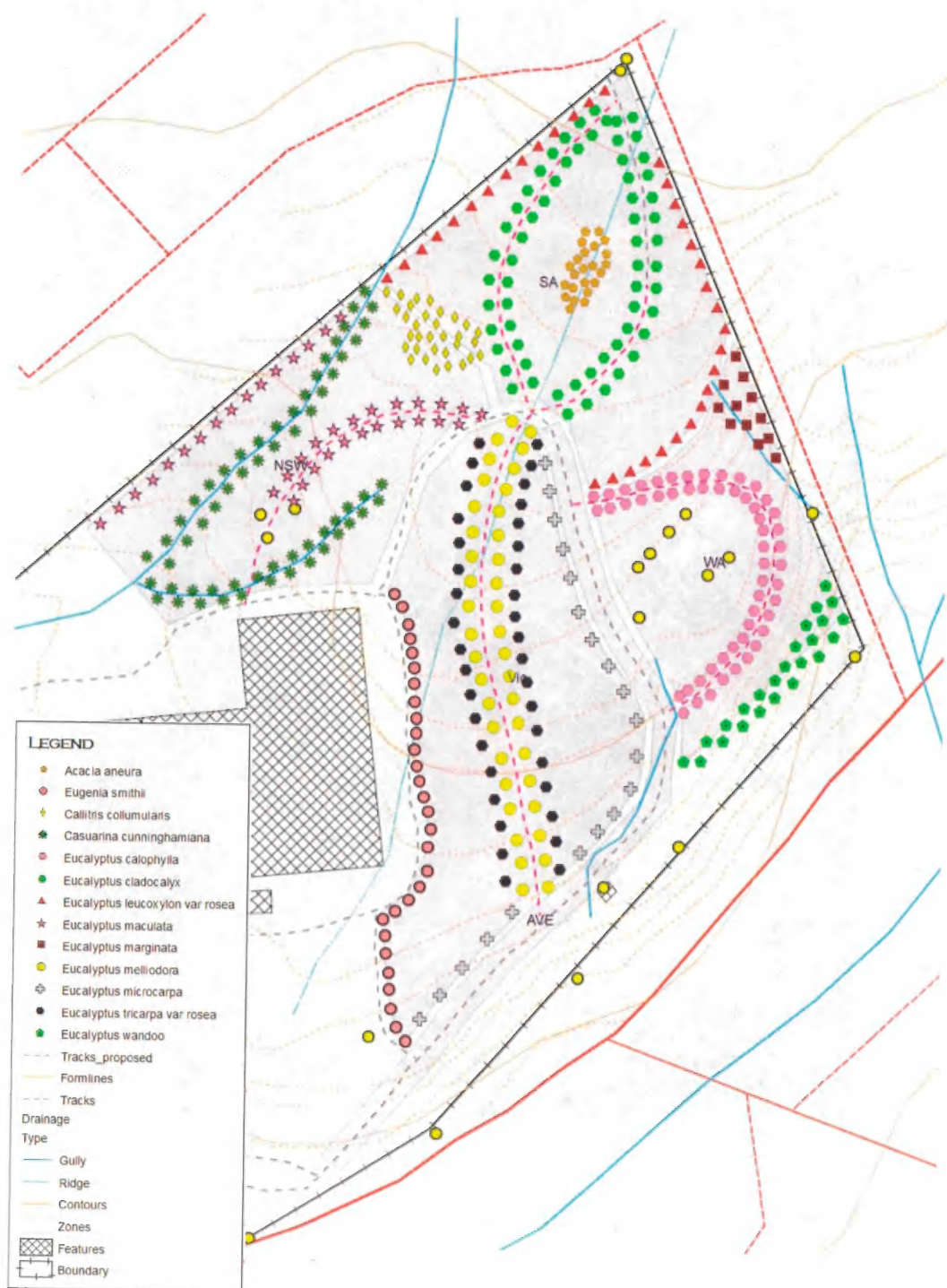


In 2012 The Tolhursts prepared a design for a botanical garden featuring indigenous species from around Australia (see next page). Kevin and Rosemary had also prepared a comprehensive history of the Park Lake area which started in the 1860s.

Kevin's plan was simple – to create a series of connected paths using indigenous plant species which required minimal ongoing maintenance. Plantings were matched to the aspect, and soil type to suit species representative of each State.

The Victoria section has Yellow Box (*Eucalyptus melliodora*) and Red Ironbark (*E. tricarpa* var. *rosea*), Grey Box (*E. micropcarpa*) and Lilly-pilly (*Eugenia smithii*) to provide contrasting colour and foliage to the eucalypts.





Kevin's plan showing a number of loop walks in several sections to highlight plants from different Australian States.



The South Australian section is located on the highest and driest part of the reserve and includes Sugar Gum (*E. cladocalyx*), Mulga (*Acacia aneura*), Red Flowering Yellow Gum (*E. leucoxylon* var *rosea*). Kevin’s plan document explains the choices of each species as representative of each state on display. Western Australia is represented by Marri (*E. calophylla*), a member of the Bloodwood group and Jarrah (*E. marginata*), an important forest tree, and Wandoo (*E. wandoo*).

The New South Wales part features Spotted Gum (*E. maculata*), River She-Oak (*Casuarina cunninghamiana*) and White Cypress Pine (*Callitris collumularis*). In between the trees, an array of native grasses and understory shrubs are also evident, providing a changing mosaic of colour throughout the year. Of course, in an area like this, many introduced weeds are present

and in some areas, tend to take over the spaces; e.g. blackberry on the steeper banks along the Daylesford Road. The birds of the area are attracted to the variety of plants and include honeyeaters, robins, whistlers and blue wrens.



Club Collection Grows

Many thanks to the members who furnished copies of past newsletters to help complete the club's archive. We now have copies of "The Ballarat Naturalist" right back to 1974 when newsletters first began. It actually wasn't until 2001 that the current title "The Ballarat Naturalist" was adopted for the club's magazine.

I am particularly grateful to Carol Hall, Les Hanrahan, Val Hocking and Peter Dalman who furnished a large number of past issues in both hard-copy and electronic form.

In the process of compiling back copies of the newsletter, I have been able to digitise quite a few and some contributors were able to send me electronic copies of more recent issues. I have also been compiling an index of articles and other information gleaned from the newsletter including species lists from excursion reports and the like. I am hoping that the index will become a valuable resource for researchers and field nats who wish to track historical information on a particular location or species of plant or animal.

I know there are copies of newsletters lurking out there that members may be willing to email, to have scanned or simply donate them to the club. I am still looking for the following issues:

2009 August

2010 March, April, May, June, September

2013 July

2014 May

If you are able to help, please let me know or bring your precious issues to the next meeting.

Regards,

Bill Elder, Editor.

Show and Tell

- Lyndsay Fink showed the Ken Steppell book "The Great Ocean Road" which included photographs of London Bridge and The Needle which have since collapsed.
- Allan Keeble had recently read a historic report of people becoming lost in the scrub in Carlton Gardens.

Field Reports

- Belinda Taylor: Copperhead with very bright sides on verandah at Haddon. Clouds of butterflies around buddleias in garden.
- Del McDonnell: Straw-necked Ibis feeding on garden lawns in Creswick.
- Margaret Tonkin: At Union Jack ReseNe, family of White-winged Choughs very agitated by a young possum climbing tree towards their nest.

Excerpt from The Ballarat Naturalist, April 2002

CALENDAR 2020

March

Fri 6 Annual General Meeting

& Members' Images "Not what it seems"

Sun 8 Western Treatment Plant Birds, Werribee

John Gregurke, FNCB

Sun 22 Junior Field Nats group (The 'Rat Nats) focus on Bark

Sun 29 Special Event for Nature Play Week – using microscopes to explore nature. Water creatures, soil creatures, beetles, butterflies and bugs, leaves and other plant parts. Family day at Stringybark.

April—To Be Confirmed

Fri 3 Susan Lawrence, Professor of Archaeology

Sludge: Disaster on Victoria's Goldfields

Sat 4 History and Geology of the Goldfields—Creswick

Sun 19 Junior group (The 'Rat Nats) we're going Microscopic

April 17-19 SEANA Autumn Camp at Hamilton

Committee

President	John Gregurke
Vice Pres	Fran Hanrahan
Secretary	Emily Noble
Treasurer	Kathy Elder
	Andy Arnold
	Bill Elder
	Les Hanrahan
	Val Hocking
	John Petheram
	Margaret Rich
	Elspeth Swan

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Meetings are held at Federation University Gillies St Campus on the first Friday of the month at 7.30pm.

Excursions: Leave from the carpark of Federation University Gillies St Campus at 9.30 am, unless otherwise advised.

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